USER GUIDE

SE1822 INTERFACE

& REMOTE CONTROL

MODULES

Version 1.8

For use with the Sage Endec model SE1822 & 3644 Digital Emergency Alert System Encoder/Decoders

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1. Theory of Operation

1.1 The DME SE1822 Interface Module is a microprocessor controlled interface that generates the required RS232 command set codes used by the Sage Endec Model 1822 and 3644 digital E.A.S. Encoder/Decoders. The Interface Module is connected to the a DB9 “COM” port on the rear of the Endec and uses the DC voltage on pin 9 provided by the Endec for all power requirements of the Interface Module and the associated Remote Control. Upon a contact closure or logic LOW across the “RWT”, (Required Weekly Test), terminal block on the Interface Module, or by depressing the Transmit RWT buttons on the Remote Control, the proper codes are transmitted in the correct order to activate the transmission of an RWT. A “PEND RLY” terminal block is provided on the Interface Module for connecting the Endec “Decoder Active” or “Dec Rly” relay contacts to notify the operator of a pending alert by a flashing “Alert Pending” LED on the Remote Control. A 6 wire modular jack (RJ12) and 50’ cable are provided to interface the SE1822 Remote Control to the Interface Module. RFI protection for the system is included as a part of the Interface Module and cable design for operation in areas where an RF environment may be encountered.

1.2 The DME 1822 Remote Control module is a passive device containing switches and indicators to remotely activate the RWT and/or to relay a pending alert or RMT. LED indicators are provided for the following functions. The “Alert Pending” LED flashes yellow while an alert is pending and a green “Sending Data” LED is activated when the proper buttons are pushed to initiate either the RWT or to relay a pending alert or RMT.

1.3 Familiarization with the sections 5.4 and 5.7 of the SE1822 Endec User Guide and Reference Manual, or sections 3.2, 4.7 and 5.7 of the 3644 Digital Endec User Guide and Reference Manual dealing with filters and relay programming is recommended for assurance to assure that the Endec is properly programmed to operate with this system.

2. Hardware and Endec software setup

2.1 **Note:** If an RC1 hand held remote has been or is connected to the unit and is operational, the jumper placement in the following steps has already been enabled.

2.2 **SE1822 only:** Open the printer cover plate and lift the printer slider plate up (rather than pulling it forward). Locate the JP16 jumper terminals underneath the metal cup that holds the paper (near the right hand edge). Make sure there is a jumper placed on JP16 as this enables power to pin 9 of the Com port connectors, and is used

to power the SE1822 Remote Control and Interface. Refer to section 12 of your Endec user manual.

Install the SE1822 Interface Module in either the Computer (front panel), COM2, COM3, or COM6 db9 ports on your Sage-Endec, and tighten the retaining screws to avoid accidental pull out. The SE1822 Interface Module operates at 9600 baud, and COM 2 and 6 are set to 9600 baud by default and cannot be changed. If the Computer or COM 3 ports are used, you may have to configure the port to 9600 baud as their default settings are 1200 baud. Configure using *menu.devices.port.baud*.

2.3 **3644 Digital:** To enable the required DC voltage to pin 9 of the COM ports, remove the top cover of the Endec by removing the six retaining screws and slide the cover plate toward the rear of the unit. Locate "JP1" on the main green PCB covering the bottom of the case. "JP1" is located towards the rear left corner of the PCB. Do not confuse this "JP1" with the JP1 on the red daughter card. You will find that the jumper is placed on only one of the pins by factory default. Remove the jumper and place it on both pins of "JP1" and replace the cover. Refer to section 13.2 of your Endec 3644 Digital User Guide and Reference Manual.

The selected COM port must be configured for remote control operation. To do this go to *menu.device.port.type.hand control*, where "*port"* is "COM X". Note: the only allowable ports for this device on the 3644 Digital are COM 3-6. These ports must be set to 9600 baud using *menu.devices.port.baud*.

2.4 **The User password must be 1111**, the factory default password. There can be no exceptions without custom programming of the Interface Module. Custom programming is available at an additional charge. Please contact DME if custom programming is desired.

To change the User password to 1111, use the *menu.change password* command on the Endec. You will need the administrator's password to do this change, and if it is not available consult section 14.3 of the SE1822 Endec User Guide or section 12.11 in the 3644 Digital Endec User Guide.

2.5 If the SE1822 Interface Module is being used only for RWT activation by an automation system or other customer supplied contact closure, connect Normally Open contact closure wires to the "RWT" terminal block on the Module. For simultaneous operation using the Remote Control module and an external contact closure such as an automation system for initiating an RWT, connect the Normally Open contact wires to the "RWT"

terminal block on the Interface Module as well as connecting the RJ12 modular connecting cable to the provided connector.

2.6 For simultaneous operation using the Remote Control and user defined external contact closures, such as an automation system or remote push buttons, for initiating an RWT, relay of an pending alert or RWT, and/or using the LED drivers and power, the use of a 6 circuit dual modular adapter may be used. This adapter may be purchased at your local supply store.

2.7 All connections required to relay a pending alert or RMT, initiate an RWT, access the LED driver lines, access power and ground may be found at the RJ12 modular connector on the Interface Module. The pin-out is as follows when viewed looking from left to right with pins 1-5 of the DB9 on the opposite end of the Module in the up position:

1. Initiate RWT (momentary to ground)
2. Relay a Pending alert (momentary to ground)
3. Ground
4. “Sending Data” LED anode, cathode to ground
5. 5-9 VDC current limited with a 100 ohm, 1/10 watt series resistor
6. “Alert Pending” LED cathode, Anode to +5-9 VDC

2.8 End of message information for an automation system may be provided by connection to the “Encoder Active” (SE1822) or “Enc Rly” (3644 Digital) relay contacts on the rear of the Endec. These contacts are closed while the Endec is sending an alert and open at the conclusion of the message transmission. (See section 5.7 of the SE1822 Endec User Guide or section 3.2 or the 3644 Digital User Guide)

2.9 Proper operation of the Remote Control module “Pending” alert lamp requires that the “Decoder Active” (SE1822) or “Dec Rly” (3644 Digital) terminals on the rear of the Endec be connected to the Interface Module “Pend Rly” terminal block. Polarity of the connection is not a factor. Use the supplied twisted pair wire. (See next page)

Fig. 1 Connection for Remote Control “Pending” Light Operation

2.10 Connect the 50 ft. modular connecting cable to the Interface Module RJ12 jack with the ferrite RFI core at the Interface Module end. Connect the other end of the cable to the modular RJ12 jack under the removable cover of the Remote Control. The cover is removed by pressing on the arrow on the bottom panel and sliding the panel off of the Remote Control box.

2.11 Note that the modular connecting cable is a “reversing” type of cable, and use of a “non-reversing” type of cable may damage the Interface module. This type of damage will not be covered under warranty. Check that the mod connectors are installed identically to both ends of the supplied cable.

2.12 End of message information for an automation system may be provided by connection to the “Encoder Active” relay contacts on the rear of the Endec. See section 2.6 above.

2.13 To assure that the default filter “pending” relay program controls the “Decoder Active” or “Dec Rly” relay, and to check the current setting and/or change the setting, go to *menu.relay* command on the Endec. Scroll to the “decoder active” relay and press the *pick* key. The currently assigned relay program will be displayed first. If it is other than “pending”, you may scroll up or down to select the “pending” program. Note that all alerts handling automatic relay, timed relay, timed ignore, or manual relay will activate the “Decoder Active” or “Dec Rly” relay. If you have any of these actions programmed, the alert pending light on the SE1822 remote box will flash upon receipt of the alert.

3 Operation

3.1 If the SE1822 Interface Module is to be operated without the remote control the only necessary action is to supply a set of normally open contacts to the “RWT” terminal block on the rear of the module. The RWT will be broadcasted upon contact closure. For more complex user defined connections for operations such as RMT relay and remote LED signaling see section 2.5 above.

3.2 If the SE1822 Remote Control is to be used, either by itself or in conjunction with the external contact closure for initiation of the RWT, operation is simple. Depressing the two “Transmit RWT” buttons simultaneously initiates the RWT. The “Sending Data” LED momentarily lights green to verify the command has been recognized and data is being sent.

3.3 When an alert or RMT is received by the Endec, the proper filter has been installed, relay activation programming has been done, and wiring between the Endec and Interface Module has been performed as described, the flashing “Alert Pending” LED will announce the presence of a pending alert. The LED will flash for the duration of the hold time or until the pending alert has been relayed. Depressing the two “Relay Pending RMT” buttons simultaneously does this. The “Sending Data” LED momentarily lights green to verify the command has been recognized and data is being sent.

5.0 Supplied Materials

- SE1822 Interface Module
- SE1822RC Remote Control
- 50’ Modular connecting cable with ferrite
- 12” twisted pair wire for connection between the Interface Module and the Endec “Decoder Active” or “Dec Rly”terminals
- Velcro mounting materials
- This User Manual

6.0 Warranty

6.1 All materials and workmanship are warranted for a period of one year from the date of purchase. Damages incurred by misapplication, carelessness, introduction of foreign materials or voltages into the enclosures or circuitry, or damages caused by natural disaster are not covered under this warranty.

7.0 Technical Support

If you have questions, experience difficulties with the product or require further information please contact DME at:
800-249-0487 or 805-987-7881
Or
Contact technical support at:
support@dmengineering.com

Trademark Information:
“Endec” is a trademark of Sage Alerting Systems, Inc.
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